

T. M.

MOUNTAIN PINE BEETLE CONDITIONS

DELL CREEK

TETON NATIONAL FOREST

WYOMING

October 1955 - Appraisal Survey

By

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Entomologist

An area containing a large number of "red top" lodgepole pine trees was located in the Dell Creek area by the aerial survey conducted September 1-2, 1955 (Teton National Forest and Teton National Park aerial survey by R. I. Washburn). An examination of the area by Mr. Paul Grossenbach, Timber Management, Regional Office, Forest Ranger Reynolds, Teton National Forest and Dick Washburn, Forest Insect Research, revealed that a very serious infestation of mountain pine beetle, *Dendroctonus monticolae*, was in progress, and that a forest insect appraisal survey would be needed in order to be able to fully evaluate the problem.

Accordingly, a systematic 10% ground cruise was conducted in the Dell Creek area during the week of October 10. A 1/5 acre circular plot was taken every 2 chains along parallel lines run in the cardinal direction most nearly at right angles to the major contour. The lines were run 10 chains apart and were tied^x into section lines to facilitate mapping. Information recorded included the number of infested trees that occurred on all of the 1/5 acre plots. In addition, the number of trees killed in 1954, trees killed prior to 1954, and the total number of green trees over 6" DBH was recorded for every tenth plot.

The results of the survey, which covered approximately 2,500 acres, show that the infested trees are located in an area of approximately 1,780 acres. This infested area contains an estimated $2,760 \pm 635$ newly infested trees, which represents 1.6 trees per acre. The "green count" and mortality data indicate that 3% of the trees 6" DBH or over in the infested area are currently infested, and that in addition a total of about 9% of the stand has been killed by the mountain pine beetle in the three years before 1954. Therefore the loss to date including

the trees now infested is about 12% of the lodgepole pine in the area or approximately 1,200 M bd. ft. of timber.

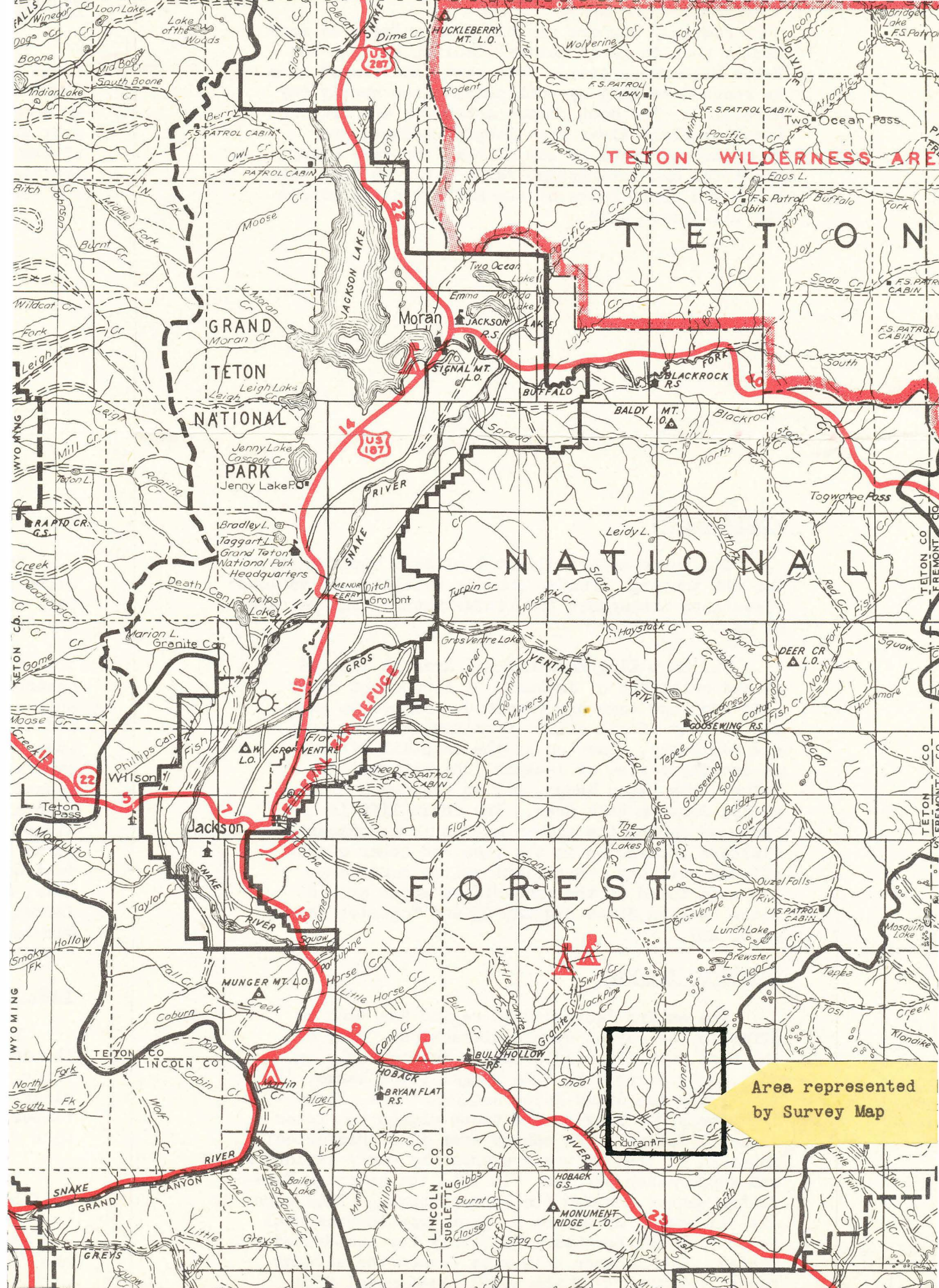
It was apparent from the first "on-the-ground" examination made September 21 that this area contained a very serious mountain pine beetle outbreak that represents a potential threat to the vast bodies of lodgepole timber adjoining the area as well as the Dell Creek timber. The appraisal survey merely confirmed this observation and made available a reliable estimate necessary to plan and organize for a possible chemical control project next spring.

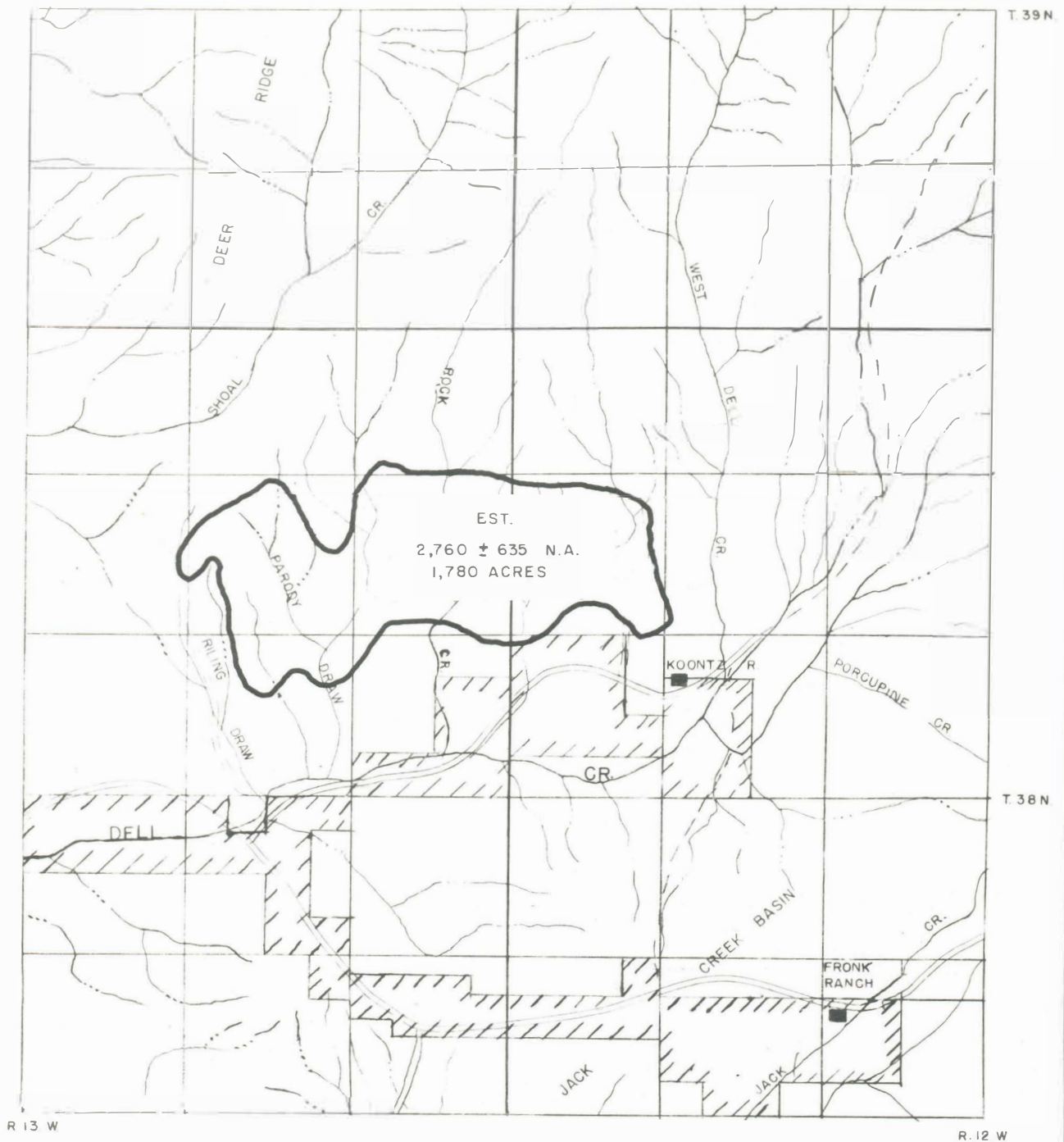
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TETON
NATIONAL FOREST
WYOMING

DELL CREEK MT PINE BEETLE OUTBREAK
INFESTED AREA



- Area**
- A. 20-25 Lpp. killed by *D. monticolae* in 1955
 - B. 1800 Lpp. killed by *D. monticolae* in 1955
 - C. 10 Lpp. killed by *D. monticolae* in 1955
 - D. Two small patches (less than 10 trees each) infested with Douglas-fir beetle
- flight lines

U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE

TETON NATIONAL FOREST

WYOMING
SIXTH PRINCIPAL MERIDIAN
1955

- LEGEND**
- NATIONAL FOREST BOUNDARY
 - ADJACENT NATIONAL FOREST BOUNDARY
 - MAIN MOTOR HIGHWAY
 - GOOD MOTOR ROAD
 - POOR MOTOR ROAD
 - TRAIL
 - TELEPHONE LINE
 - STATE LINE
 - SUPERVISOR HEADQUARTERS
 - DISTRICT RANGER STATION
 - GUARD OR RANGER STATION NOT PERMANENTLY OCCUPIED
 - PERMANENT LOOKOUT STATION
 - TRIANGULATION STATION
 - TRIANGULATION STATION AND PERMANENT LOOKOUT STATION
 - HOUSE, CABIN OR OTHER BUILDING
 - MUNICIPAL LANDING FIELD
 - NATIONAL FOREST LAND

REPORT ALL FIRES TO FOREST SUPERVISOR, RANGER, GUARD, SHERIFF OR ANY TELEPHONE OPERATOR